



Pacific Power |  
Rocky Mountain Power  
825 NE Multnomah, Suite 1800  
Portland, Oregon 97232

Electronically filed October 13, 2021

Kimberly D. Bose, Secretary  
Federal Energy Regulatory Commission  
888 First Street, NE  
Washington, D.C. 20426

**Subject: Dry Canyon Pumped Storage Project  
Application for Preliminary Permit**

Dear Ms. Bose:

PacifiCorp is pleased to submit to the Federal Energy Regulatory Commission (Commission) the attached application for a preliminary permit for the proposed Dry Canyon Pumped Storage Project (Project). PacifiCorp is submitting this application to secure and maintain priority of application for a license for the Project while undertaking the studies necessary to determine its feasibility.

The Project as proposed is a closed loop, pumped storage hydropower development located in Bear Lake County, Idaho. The proposed capacity would be approximately 1,800 megawatts, with an estimated average annual energy production of 5.4 terawatt hours.

This letter and its enclosures have been filed electronically. The security classification of each component in this packet is shown in the enclosure table. Should the Commission have any questions concerning these documents, please contact Mark Stenberg by phone at (208) 339-9552, or by email at [mark.stenberg@pacificorp.com](mailto:mark.stenberg@pacificorp.com).

Sincerely,

Mark Sturtevant

Mark Sturtevant (Oct 12, 2021 15:50 PDT)

Mark A. Sturtevant  
Vice President, Renewable Resources

MAS:MJS:BB

<b>Encl:</b>	Letter – Public
	Application for Preliminary Permit – Public
	Exhibit 3, Overview Map, Sheet 1 of 3 – Public
	Exhibit 3, Preliminary Permit Application Boundary, Sheet 2 of 3 – Public
	Exhibit 3, Proposed Facility Detail, Sheet 3 of 3 – Public
<b>eFile:</b>	Via eLibrary at <a href="http://www.ferc.gov">www.ferc.gov</a>

# **DRY CANYON PUMPED STORAGE HYDROPOWER PROJECT**

## **APPLICATION FOR PRELIMINARY PERMIT**

### **INITIAL STATEMENT, GENERAL CONTENT, AND EXHIBITS 1 THROUGH 3**



October 2021

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**ACRONYMS AND ABBREVIATIONS**

Application	Application for Preliminary Permit
CFR	Code of Federal Regulations
FERC	Federal Energy Regulatory Commission
FPA	Federal Power Act
kV	Kilovolt
MW	Megawatt
MWh	Megawatt-hour
NAVD88	North American Vertical Datum of 1988
TWh	Terawatt-hour
USFWS	U.S. Fish and Wildlife Service

**INITIAL STATEMENT<sup>1</sup>****BEFORE THE FEDERAL ENERGY REGULATORY COMMISSION*****APPLICATION FOR PRELIMINARY PERMIT***

(1) PacifiCorp (Applicant) applies to the Federal Energy Regulatory Commission (FERC) for a preliminary permit for the proposed Dry Canyon Pumped Storage Hydropower Project (Project), as described in the attached exhibits. This Application is made in order that the Applicant may secure and maintain priority of Application for a license for the Project under Part I of the Federal Power Act (FPA) while obtaining the data and performing the acts required to determine the feasibility of the Project and to support an Application for a license.

(2) The location of the proposed Project is:

State or territory: Idaho

County: Bear Lake County

Township or nearby town: Saint Charles

Stream or other body of water: Mud Lake (A part of the Applicant's Bear River water storage and delivery system.)

(3) The exact name and business address of the Applicant are:

PacifiCorp

825 NE Multnomah, Suite 2000

Portland, OR 97232

The exact name and business address of each person authorized to act as agent for the Applicant in this Application are:

Mark Stenberg, License Program Manager

PacifiCorp

822 Grace Power Plant Rd.

Grace, ID 83241

Email: Mark.Stenberg@PacifiCorp.com

Phone: (208) 339-9552

Tim Hemstreet, Managing Director, Renewable Energy Development

PacifiCorp

825 NE Multnomah, Suite 1800

Portland, OR 97232

Email: Tim.Hemstreet@pacificorp.com

Phone: (503) 813-6170

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<sup>1</sup> 18 Code of Federal Regulations (CFR) §4.81(a)

Dustin Till, Assistant General Counsel  
PacifiCorp  
825 NE Multnomah, Suite 2000  
Portland, OR 97232  
Email: Dustin.Till@pacificorp.com  
Phone: (503) 813-6589

- (4) The Applicant, PacifiCorp, is a domestic corporation and is not claiming municipal preference under section 7(a) of the FPA. PacifiCorp, a corporation located in Portland, Oregon, is organized under the laws of the State of Oregon and, as such, is qualified under § 4(e) of the FPA to hold hydroelectric licenses issued under Part I of the FPA.
- (5) The proposed term of the requested permit is 48 months.
- (6) The proposed project would use the existing facilities and rights, as follows:

#### **PacifiCorp Facilities Background**

The Applicant owns and operates the over 100-year-old Bear Lake Facilities. These existing facilities are used by the Applicant to divert water from the Bear River and to store and release water from the Bear Lake Reservoir (Bear Lake and Mud Lake). The Bear Lake Facilities include Stewart Dam, Rainbow Canal Headgates, Rainbow Canal, Ream-Crocket Canal Intake, Ream-Crocket Canal, Bear Lake Causeway Inlet, Lifton Pumping Station, Outlet Canal, Paris Dike and Outlet Canal Headgates. The Bear Lake Facilities were in place and functioning in 1914 except for the Lifton Pumping Station, which became operational in 1917. In addition to irrigation water storage and delivery, this system allows the management of Bear River water for flood control and power generation.

Prior to the construction of these facilities, a right-of-way over the Bear Lake Reservoir (Mud Lake and Bear Lake) for the storage and conveyance of water was granted by the Secretary of the Interior in 1907. In 1927, the portion of the 1907 right-of-way north of Paris Dike was reduced in size to only cover Outlet Canal. The current footprint of the Mud Lake portion of the right-of-way is 15,487 acres.

Within Mud Lake is the Mud Lake Regulation Reservoir, created by the facilities mentioned above and habitat management dikes built by the U.S. Fish and Wildlife Service (USFWS) as part of its management of the Bear Lake National Wildlife Refuge. The Mud Lake Regulation Reservoir occupies approximately 8,286 acres (in normal operation) within the larger Mud Lake area. During periods of high runoff, the water control structures in the habitat management dikes are opened to allow the full water storage capability of the 15,487 acres of Mud Lake to be used. Normal maximum full pool of the Mud Lake Regulation Reservoir is 5,930.78 feet NAVD88 (maximum flood full pool is 5,931.78 NAVD88).

At the upstream end of this system, water is diverted from the Bear River at Stewart Dam and then conveyed through the Rainbow Canal Headgate and Rainbow Canal to the Mud Lake Regulation Reservoir. Once in the Mud Lake Regulation Reservoir water can be stored, diverted back to the Bear River through Outlet Canal, or moved into Bear Lake through the Bear Lake Causeway Inlet.

The Applicant currently holds water rights from the states of Idaho and Utah to divert the Bear River at Stewart Dam and store diverted Bear River water in the Bear Lake Reservoir. The Applicant has a right to use the stored water for irrigation, power generation, and other beneficial purposes recognized by law.

In addition to the existing Bear Lake Facilities, right-of-way, and water rights, there are three existing 345-kilovolt (kV) transmission lines located within 20 miles of the proposed Project that could be used to support transmission needs. The Applicant's proposed 500-kV line (Gateway West) is near these corridors also.

### **Existing Facilities to be Utilized**

The water for the Project will be diverted at Stewart Dam and conveyed through Rainbow Canal to Mud Lake Regulation Reservoir using existing facilities, water rights and storage rights. The Applicant is proposing to use a portion of the Mud Lake Regulation Reservoir along with associated facilities and rights for development of a lower reservoir for the Project. The Applicant is the sole owner of these existing facilities and rights



**GENERAL CONTENT<sup>2</sup>**

- (1) *Identify every person, citizen, association of citizens, domestic corporation, municipality, or state that has or intends to obtain and will maintain any proprietary right necessary to construct, operate, or maintain the Project:*

PacifiCorp  
825 NE Multnomah, Suite 2000  
Portland, OR 97232

- (2) *Identify (providing names and mailing addresses):*

- (i) *Every county in which any part of the Project, and any Federal facilities that would be used by the Project, would be located:*

Bear Lake County  
Cindy Garner, County Clerk  
30 N. Main, P.O. Box 190  
Paris, ID 83261

The lower reservoir and intake/outtake structure would be located within the federal boundary of the Bear Lake National Wildlife Refuge, in Bear Lake County.

- (ii) *Every city, town, or similar local political subdivision:*

- (A) *In which any part of the Project, and any Federal facilities that would be used by the Project, would be located:*

The Project would not be located within any city, town, or similar local political subdivision.

- (B) *That has a population of 5,000 or more people and is located within 15 miles of the Project dam:*

There are no cities, towns, or similar local political subdivisions with a population of 5,000 or more people within 15 miles of the Project dams.

- (iii) *Every irrigation district, drainage district, or similar special purpose political subdivision:*

- (A) *In which any part of the Project, and any Federal facilities that would be used by the Project, would be located:*

The Project is in Water District 11, Bear River, an organized government entity created and supervised by the Idaho Department of Water Resources to distribute water consistent with water rights on record.

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<sup>2</sup> 18 CFR §4.32(a)

The Bear Lake National Wildlife Refuge is within Water District 11, Bear River. The Project's lower reservoir and intake/outlet structure would be located within the federal boundary of the Bear Lake National Wildlife Refuge.

There are no other irrigation districts, drainage districts, or similar special purpose political subdivisions in which any part of the Project or any other federal facilities used by the Project would be located.

*(B) That owns, operates, maintains, or uses any Project facilities or any Federal facilities that would be used by the Project:*

There are no irrigation districts, drainage districts, or similar special purpose political subdivisions that own, operate, maintain, or use any Project facilities or federal facilities that would be used by the Project.

*(iv) Every other political subdivision in the general area of the Project that there is reason to believe would likely be interested in, or affected by, the Application:*

Bear Lake County, Idaho, would likely be interested in the Project. The Project has the potential to create economic benefits in Bear Lake County.

*(v) All Indian tribes that may be affected by the Project:*

Northwestern Band of the Shoshone Nation  
Brigham City Office  
707 North Main Street  
Brigham City, Utah 84302

Shoshone Bannock Tribes  
P.O. Box 306  
Pima Drive, Fort Hall, ID 83203

Ute Indian Tribe of the Uintah and Ouray Reservation  
P.O. Box 190  
Fort Duchesne, Utah 84026-0190

**UNITED STATES OF AMERICA  
BEFORE THE  
FEDERAL ENERGY REGULATORY COMMISSION**

PacifiCorp )  
 )  
 )  
 )  
 ) Dry Canyon Pumped  
Storage Hydropower Project  
Project No. \_\_\_\_\_

**SUBSCRIPTION AND VERIFICATION**

In witness whereof Applicant PacifiCorp has caused its name to be hereunto executed by Tim Hemstreet, PacifiCorp, Managing Director, Renewable Energy Development, this 8<sup>th</sup> day of October 2021.

State of Oregon  
County of Multnomah

PACIFICORP

by: Tim Hemstreet, Managing Director, Renewable Energy Development  
PacifiCorp  
825 NE Multnomah, Suite 1800  
Portland, OR 97232

being duly sworn, deposes and says that the contents of this Application for Preliminary Permit for the Dry Canyon Pumped Storage Hydropower Project are true to the best of his knowledge or belief. The undersigned Applicant has signed the Application this 8<sup>th</sup> day of October 2021.

Tim Hemstreet

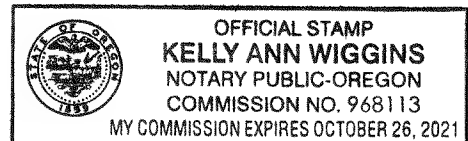
Tim Hemstreet, PacifiCorp, Managing Director, Renewable Energy Development

Subscribed and sworn to before me, a Notary Public of the State of Oregon this 9<sup>th</sup> day of October 2021.

Kelly A. Wiggins

Kelly A. Wiggins, Notary Public

My Commission Expires 10/26/2021



## **EXHIBIT 1 - PROJECT DESCRIPTION**

### **1.1 General Project Configuration**

The proposed Dry Canyon Pumped Storage Hydropower Project (Project) is a closed-loop pumped storage hydroelectric generating facility.

#### **1.1.1 Dam and Levee**

A roller-compacted concrete dam with a height of 530 feet and a crest length of 2,900 feet would create the upper reservoir in Dry Canyon. Dam Crest would be at approximately 7,437 feet NAVD88.

A rock-armored earthen levee with an average height of 22 feet above the bottom of the Mud Lake Regulation Reservoir and a length of 24,242 feet would be constructed to form the lower reservoir. Two inlet/outlet structures would be included, one each in the north and west levees. The top of the levee would be approximately 5,942 feet NAVD88.

#### **1.1.2 Spillways**

The need for an upper reservoir auxiliary spillway will be analyzed during engineering studies proposed under Section 2.1.3.

#### **1.1.3 Penstocks**

Starting at the upper reservoir's inlet/outlet structure behind the dam, three 22-foot-diameter penstocks, each being approximately 6,650 feet in length, would connect to the generating/pumping units in the underground chamber. A combination of exposed penstocks, concrete-lined tunnels and steel-lined tunnels are proposed.

#### **1.1.4 Underground Generating/Pumping Station**

Proposed dimensions of the underground generating/pumping station chamber are 660 feet long and 110 feet wide. An access tunnel and a utility tunnel are proposed to provide access to the underground chamber. The access tunnel would provide primary operations access from Merkley Road and the upper utility tunnel would connect to the switch yard.

#### **1.1.5 Tailraces**

Below the generating/pumping units, three 22-foot diameter concrete-lined tailrace tunnels would connect to the inlet/outlet structure in the lower reservoir. The proposed tailrace tunnels would each be approximately 2,200 feet in length.

### **1.2 Proposed Reservoirs**

#### **1.2.1 Lower Reservoir**

A lower reservoir with a surface area of 1,390 acres is proposed to be sited in the southeast corner of the 8,286-acre Mud Lake Regulation Reservoir. The lower reservoir would have a storage volume of 30,680 acre-feet (23,730 active and 4,170 dead pool). Reservoir full-pool surface elevation is proposed to be approximately 5,938.88 feet NAVD88. The reservoir would

have two feet of free board above full pool. The 24,242 feet of levee and natural landforms would form this reservoir and separate it from the waters of Mud Lake Regulation Reservoir to create a closed-loop system. See Section 6 of the Initial Statement of this Application for a description of the Applicant's facilities that comprise the Mud Lake Regulation Reservoir. Other alternatives to use the Mud Lake Regulation Reservoir for a lower pumped storage reservoir may be investigated.

#### **1.2.2 Upper Reservoir**

An upper reservoir with a surface area of 182 acres is proposed to be sited east of Mud Lake in Dry Canyon. The upper reservoir would have a storage volume of approximately 26,880 acre-feet (23,730 active and 3,150 dead pool). Reservoir full-pool surface elevation is proposed to be approximately 7,426.88 feet NAVD88. The reservoir would have ten feet of freeboard above full pool. The upper reservoir would include an inlet/outlet structure connected to the dam and penstocks. The need for an auxiliary spillway will be evaluated.

### **1.3 Transmission Lines**

The Project would require construction of an up to 500 kV transmission line from the powerhouse to a new substation that would interconnect to the Applicant's existing or planned transmission lines. There are three existing 345 kV transmission lines located within 20 miles. In addition, there are plans for the alignment of a future 500 kV transmission line (Gateway West) near these corridors. The Exhibit 3 maps illustrate one potential transmission line routing and the potential locations of an above-ground switchyard near the generating/pumping units.

### **1.4 Average Annual Energy Production and Installed Capacity**

The purpose of this Project would be to provide energy storage, support, and balance to PacifiCorp's system while allowing for the incorporation of additional variable renewable generation resources such as wind and solar. The Project would pump water from the lower reservoir during times when surplus energy from other resources is available and generate electricity during periods of high demand. Based on customer energy demands and available energy production on PacifiCorp's system, the Project could pump and generate multiple times in a 24-hour period.

The total estimated annual energy production is 5.4 terawatt-hours (TWh). The installed capacity of the Project would be 1,800 MW. The gross hydraulic head as proposed is 1,490 feet and the typical daily output (based on a daily fill-and-run cycle with 8 hours of generation) would be 14,400 megawatt-hours (MWh). The Project would have an anticipated 80 percent round-trip efficiency rating so daily pumping energy required (based on a daily fill-and-run cycle) would be 18,000 MWh.

Six 300-megawatt (MW) generating/pumping units are proposed. It is anticipated the turbines could be impulse or reaction type.

## **1.5 Lands of the United States**

The proposed preliminary permit boundary encompasses approximately 11,605 acres of lands of the United States. Of these lands of the United States, 1,948 acres are managed by the Bureau of Land Management and 9,657 acres by the USFWS.

### **1.5.1 U.S. Bureau of Land Management**

The upper reservoir, penstocks, powerhouse/pumping station, access roads, switchyard, and a portion of the transmission line are proposed on lands of the United States managed by the U.S. Department of Interior, Bureau of Land Management. These lands are depicted on the Application for Preliminary Permit (“Application”) boundary maps in Exhibit 3 – Sheets 1, 2 & 3, Appendix A – FERC Form 587 and in Appendix B – Listing of Lands of the United States. As required in 18 CFR 4.81, the Applicant has sent these forms to the Bureau of Land Management state office in Boise, Idaho.

### **1.5.2 U.S. Fish and Wildlife Service**

The lower reservoir is proposed on lands of the United States managed by the USFWS as part of the Bear Lake National Wildlife Refuge. These lands are depicted on the Application boundary maps in Exhibit 3 – Sheets 1, 2 & 3, Appendix A – FERC Form 587 and in Appendix B – Listing of Lands of the United States. The Applicant currently actively utilizes refuge lands (the Mud Lake Regulation Reservoir), through a 1907 federal right-of-way, for the storage and release of diverted Bear River water. In concert with this Application submittal, the Applicant has sent these forms to the USFWS state office in Boise, Idaho.

### **1.5.3 National Wild and Scenic Rivers System**

There are no known areas within or in the vicinity of the proposed project boundary that are included in or have been designated for study for inclusion in the National Wild and Scenic Rivers System.

### **1.5.4 Wilderness Act**

There are no known areas within the proposed project boundary that, under the provisions of the Wilderness Act, have been designated as a wilderness area, recommended for designation as a wilderness area, or designated as a wilderness study area.

## **1.6 Public Interest**

As a rate-regulated electric utility, PacifiCorp serves its customers under a cost-of-service model that delivers energy solutions to customers at prices that are below national and regional averages. PacifiCorp is the largest grid operator in the western United States and serves the energy needs of 2 million customers across six western states through owned and contracted energy resources. PacifiCorp shares a vision with its customers and communities in which clean energy from across the West powers jobs and innovation. Over the past several years, PacifiCorp has outlined an ambitious path to substantially increase its renewable energy capacity, evolving its existing portfolio and connecting supply with demand through an expanded, modernized transmission system.

The proposed Project would support the public interest by advancing PacifiCorp's capability to serve customers with clean, affordable and reliable energy service using renewable energy storage and carbon-free generation of electricity. Storage resources such as the proposed Project will be increasingly necessary to balance the rising percentage of variable wind and solar energy on PacifiCorp's system with dynamic customer energy needs.

In addition to the ability of the Project to support progress towards a clean energy future, the proposed Project would create job opportunities during construction and long-term operations and maintenance positions. The investments in the project would also support the local community through an expanded tax base along with sales and use taxes resulting from construction.

The Applicant's Project proposes to use as its lower reservoir an area already used to store water. This eliminates the need to inundate new lands for the lower reservoir and creates increased water storage capacity. The additional storage capacity created by the proposed Project is the amount of water surcharged in the lower reservoir, that is, the amount of water stored above the normal elevation of the Mud Lake Regulation Reservoir. It is anticipated the additional storage will amount to approximately 16,000-acre feet of water that will be available for irrigation and power generation purposes.

The Applicant recognizes that creation of a new lower reservoir within Mud Lake Regulation Reservoir would impact wetlands within the Bear Lake National Wildlife Refuge. The Applicant has proposed a wetland study in this Application to identify wetlands in the proposed lower reservoir area and evaluate the potential to provide mitigation for these impacts on the Applicant's nearby properties. In addition, the study will look at benefits of implementing components of the Bear Lake National Wildlife Refuge and Oxford Slough Waterfowl Production Area Comprehensive Conservation Plan (USFWS 2013).

As with most FERC-licensed hydropower projects, the proposed Project seeks to provide additional public recreation and environmental protection and enhancement benefits, all supporting the public interest of the Project.

## **EXHIBIT 2 - DESCRIPTION OF STUDIES**

### **2.1 Study Process**

Prior to submittal of this Application, the Applicant reviewed existing data sources (see Section 2.6 References for data sources), conducted field visits, and performed conceptual engineering analyses. The Applicant proposes to conduct the studies listed below to further evaluate the technical, economic, financial, and environmental feasibility of the proposed Project in support of an application for license.

These studies and analyses will provide critical inputs to the decision process to proceed with a Notice of Intent and a Preliminary Application Document in the pursuit of a FERC project license.

The implementation of studies will be conducted in accordance with applicable federal and state permitting requirements. Any necessary permits or landowner permissions needed will be obtained in order to conduct the studies described here.

The Applicant's professional staff, along with qualified third-party consultants, will complete the preliminary studies described below. Applicant staff and consultant support may include civil, mechanical, electrical, and geotechnical engineers; cultural resource and recreation professionals; biologists; visual resource professionals; hydrologists; and water quality professionals.

#### **2.1.1 Cultural Resource Study**

A literature search for existing site information in the Idaho State Historic Preservation Office database will be performed. Should any documents be identified in the literature search they will be reviewed to identify known cultural resources in the Project area. Any areas of potential disturbance from implementation of studies will be cleared in advance with pedestrian survey methods. Any cultural clearances needed for preliminary studies will be coordinated with the State Historic Preservation Office, Indian tribes, and federal land managers.

#### **2.1.2 Energy Needs and Economic Analysis**

An energy needs analysis of the proposed Project's ability to support variable renewable resources and contribute to balancing energy supply and demands will be performed. The analysis will include estimates of power production and renewable power integration. Long-term Project economics will be analyzed that will include cost data from other studies proposed in this document. In addition, the Project may be evaluated in the Applicant's Integrated Resource Plan, which would evaluate the Project's ability to contribute to a least-cost, least-risk resource portfolio.

#### **2.1.3 Engineering Studies**

Preliminary engineering designs will be prepared for the powerhouse/pump station, upper and lower intake/outlet structures, upper and lower reservoirs, transmission lines, auxiliary spillway, dam and dikes, and penstock tunnels to determine the feasibility, estimated costs and construction timelines.



#### 2.1.4 Environmental Studies

The following actions will be completed to inform the Project's environmental setting:

*Fisheries Studies* – A literature review will be performed and an annotated bibliography of existing fisheries studies and data for the Mud Lake Regulation Reservoir will be prepared.

*Nesting Birds* – A nesting bird survey will be performed in the areas potentially affected by the development of the lower reservoir.

*Sensitive Plants* – Plant communities will be delineated within areas potentially affected by Project development. In these same areas, surveys will be conducted for sensitive plants listed in state and federal databases.

*Terrestrial and Avian Species* – Wildlife habitat will be delineated within areas potentially affected by Project development. State and federal databases will be queried to develop a list of threatened, endangered, or sensitive species potentially occurring in the project area.

*Water Quality* – A literature review will be performed and an annotated bibliography of water quality studies and data sources for the Mud Lake Regulation Reservoir will be prepared.

Information obtained from the environmental studies will be used to prepare the discussion of resources and potential impacts, as well as study plans that could be proposed in a Preliminary Application Document.

#### 2.1.5 Geotechnical Analysis

A geotechnical evaluation will be completed to assess existing geological, seismic, aerial, and soil data. An analysis will be completed of the suitability of area soils and rock for use as construction material and as foundations. Additional borings, soundings, soil sampling, and laboratory testing of materials may be conducted as needed to inform preliminary engineering studies.

#### 2.1.6 Wetland Study

A wetland study will be completed to assess the wetlands in the proposed lower reservoir area and evaluate mitigation potential on the Applicant's nearby properties. In addition, the study will look at the potential mitigation benefits of implementing components of the Bear Lake National Wildlife Refuge and Oxford Slough Waterfowl Production Area Comprehensive Conservation Plan (USFWS 2013). This information will be used in the discussion of resources and potential impacts, as well as study plans that could be proposed in a Preliminary Application Document.

#### 2.1.7 Recreation Study

An assessment of recreation uses in the project area and the potential Project effects on recreation will be prepared. This information will be used in the discussion of resources and potential impacts, as well as study plans that could be proposed in a Preliminary Application Document.

### 2.1.8 Survey and Topography

A topographic and boundary survey of the proposed project area will be completed. This information will be used to prepare the preliminary engineering plans, a proposed project boundary, and land ownership information.

### 2.1.9 Transmission Interconnection Study

Consistent with the procedures outlined in Applicant's Open Access Transmission Tariff filed with FERC, transmission interconnection studies will be completed to determine the feasibility of interconnecting the proposed Project and any network upgrades that may be necessary, and their associated cost. The interconnection studies will determine the location, number of circuits, voltage, and configuration of the Project's interconnection with the regional utility network.

### 2.1.10 Transportation Study

An analysis of the area roadways and their capacity to support construction and operation of the Project will be completed.

### 2.1.11 Visual Resource Study

A baseline evaluation of existing visual resources at the Project site and from key observation points will be prepared. Visual simulations will be prepared from key observation points that incorporate Project structures including the lower reservoir and dike, upper reservoir and dam, transmission line, switch yard, and Project roads. The visual simulations and baseline conditions will be used to identify preliminary issues or potential accommodations in the preliminary engineering work. This information will be used to prepare the discussion of resources and preliminary issues in a Preliminary Application Document.

### 2.1.12 Access to Conduct Studies

No new road construction is proposed for the purpose of conducting the studies outlined in this Application. If after further scoping, geotechnical and engineering studies proposed in this Application require additional temporary access routes, those routes and subsequent restoration will be coordinated with the federal land managers and private owners.

## 2.2 Work Plan for New Dam Construction

The Applicant proposes construction of a roller-compacted concrete dam to form the upper reservoir. As geotechnical and engineering analysis proceeds and the need for additional field investigations is identified, the Applicant will submit investigation work plans to the FERC.

The Applicant proposes construction of a rock-armored levee to form the lower reservoir. As geotechnical and engineering analysis proceeds and the need for additional field investigations is identified, the Applicant will submit investigation work plans to the FERC.

Information about field investigations will be submitted following the guidelines in 18 CFR § 4.81 that require the following:

- (i) A description, including the approximate location, of any field study, test, or other activity that may alter or disturb lands or waters in the vicinity of the

proposed project, including floodplains and wetlands; measures that would be taken to minimize any such disturbance; and measures that would be taken to restore the altered or disturbed areas; and

(ii) A proposed schedule (a chart or graph may be used), the total duration of which does not exceed the proposed term of the permit, showing the intervals at which the studies, investigations, tests, and surveys, identified under this paragraph are proposed to be completed.

(iii) For purposes of this paragraph, *new dam construction* means any dam construction the studies for which would require test pits, borings, or other foundation exploration in the field.

## 2.3 Waiver

The Applicant is not requesting a waiver from the requirement to submit work plans for new dam construction.

## 2.4 Costs and Financing

### 2.4.1 Estimated Costs

The estimated costs of carrying out the scope of work described in Exhibit 2 is \$1,855,000 allocated as follows:

Cultural Resources	50k
Energy Needs & Economic Analysis	150k
Engineering (includes field investigations)	\$1,000k
Environmental	\$200k
Geotechnical	\$200k
Wetlands	\$75k
Recreation	\$25k
Survey and Topography	\$75k
Transmission Interconnect	\$25k
Transportation	\$20k
Visual Resources	\$35k
<b>ESTIMATED TOTAL STUDY COSTS</b>	<b>\$1,855k</b>

### 2.4.2 Financial Sources

The Applicant will self-finance the studies, investigations and consultation activities identified in this Application.

Retail and wholesale electricity revenue, along with energy and direct costs, are the key drivers of the Applicant's financial results of operations. The Applicant's net income for the year ended December 31, 2020, was \$741 million on operating revenues of \$5.3 billion. The Applicant's operating revenue increased \$273 million for 2020 compared to 2019 due to higher retail revenue of \$250 million and higher wholesale and other revenue of \$23 million. For the same period, net

income decreased by \$32 million for 2020 compared to 2019, primarily due to increased operation and maintenance expenses.

The Applicant's revenues are sufficient to meet the costs identified in this Application. Additional financial data is presented in Berkshire Hathaway Energy Company's December 31, 2020, annual Form 10-K report available at:

[https://www.brkenenergy.com/assets/upload/financial-filing/20201231\\_BHE%20Form%2010-K.pdf](https://www.brkenenergy.com/assets/upload/financial-filing/20201231_BHE%20Form%2010-K.pdf).

## 2.5 Schedule for Studies

The schedule for completion of the studies outlined in this Application is presented in the table below. It is the Applicant's intent that these studies be completed along this timeline. This schedule assumes that a preliminary permit will be issued by December 1, 2021.

Preliminary Permit Issued	December 2021
Group A studies to be initiated first – Energy Needs & Economics, Engineering, Geotechnical, Wetlands, and Survey and Topography.  Group B studies to be initiated second – Cultural Resources, Nesting Birds, Sensitive Plants, Terrestrial and Avian Species, Water Quality, Recreation, Transmission Interconnect, Transportation, and Visual Resources.	January 2022 – April 2024
Submit Work Plan for Field Investigations – New Dam Construction	Prior to August 2022
Complete Initial Environmental and Economic Analyses	October 2024
Initiate the preparation of the NOI and PAD	November 2024
File NOI and PAD	November 2025

## 2.6 References

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- PacifiCorp. 2019. Integrated Resource Plan, October 18, 2019. <https://www.pacificorp.com/energy/integrated-resource-plan.html>

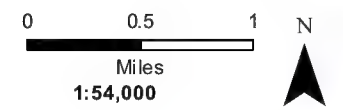
### **EXHIBIT 3 - PROJECT MAPS**



**Exhibit 3**  
**Dry Canyon**  
**Pumped Storage**  
**Hydropower Project**  
Bear Lake County, Idaho

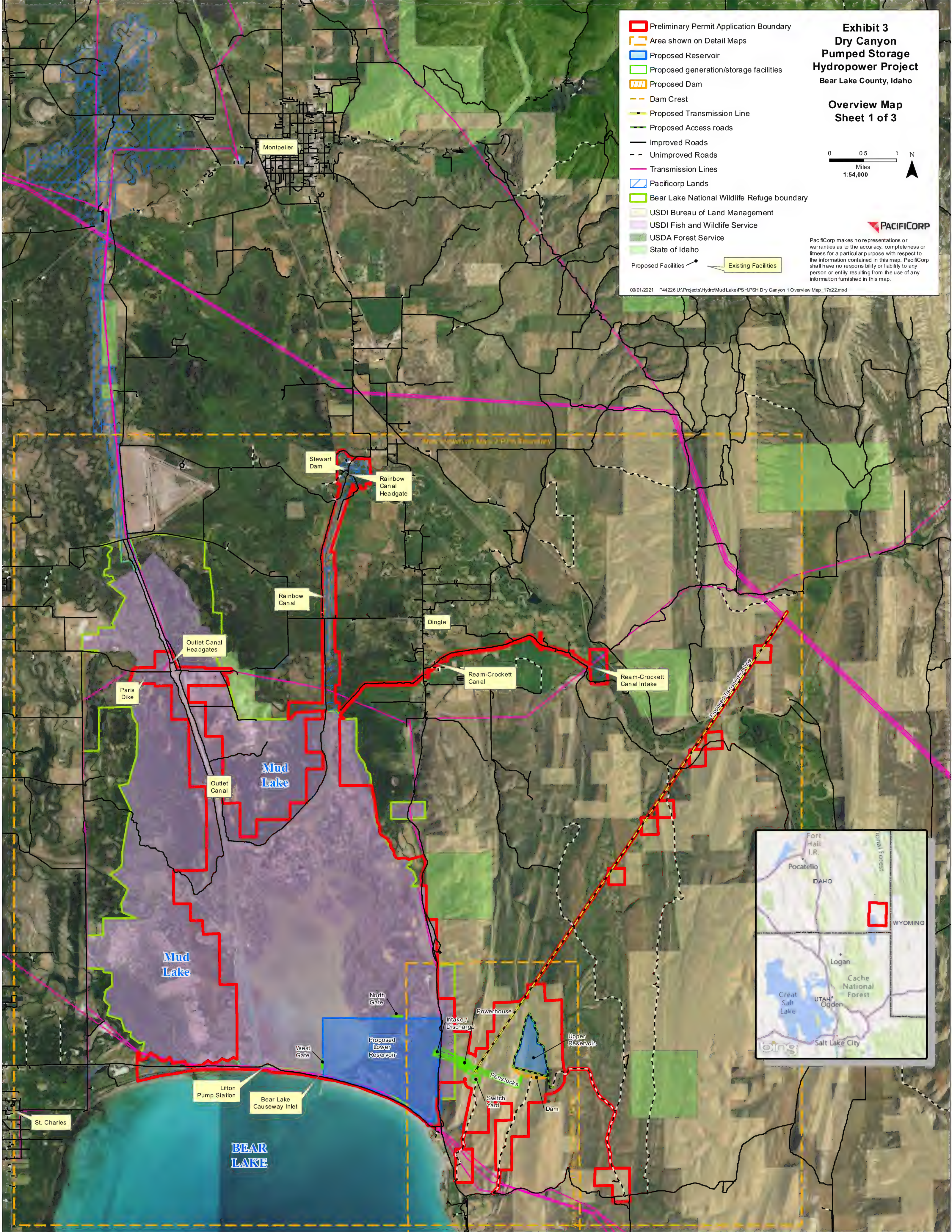
**Overview Map**  
**Sheet 1 of 3**

- Preliminary Permit Application Boundary
- Area shown on Detail Maps
- Proposed Reservoir
- Proposed generation/storage facilities
- Proposed Dam
- Dam Crest
- Proposed Transmission Line
- Proposed Access roads
- Improved Roads
- Unimproved Roads
- Transmission Lines
- PacifiCorp Lands
- Bear Lake National Wildlife Refuge boundary
- USDI Bureau of Land Management
- USDI Fish and Wildlife Service
- USDA Forest Service
- State of Idaho
- Proposed Facilities
- Existing Facilities



PacifiCorp makes no representations or warranties as to the accuracy, completeness or fitness for a particular purpose with respect to the information contained in this map. PacifiCorp shall have no responsibility or liability to any person or entity resulting from the use of any information furnished in this map.

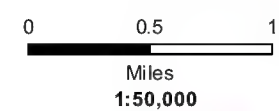
09/01/2021 P44226 U:\Projects\Hydro\Mud Lake\PSH\PSH Dry Canyon 1 Overview Map\_17x22.mxd





**Exhibit 3**  
**Dry Canyon**  
**Pumped Storage**  
**Hydropower Project**  
Bear Lake County, Idaho

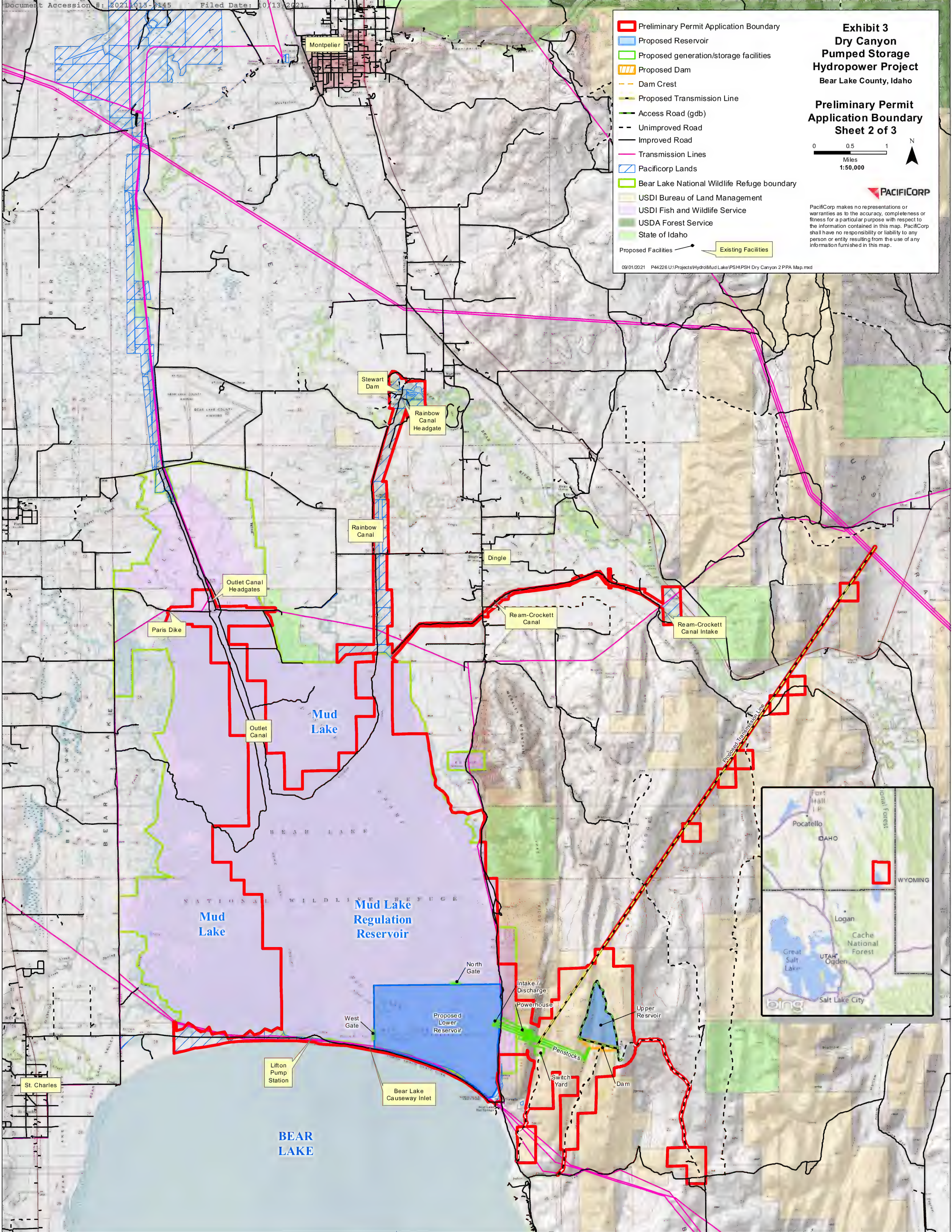
**Preliminary Permit**  
**Application Boundary**  
**Sheet 2 of 3**



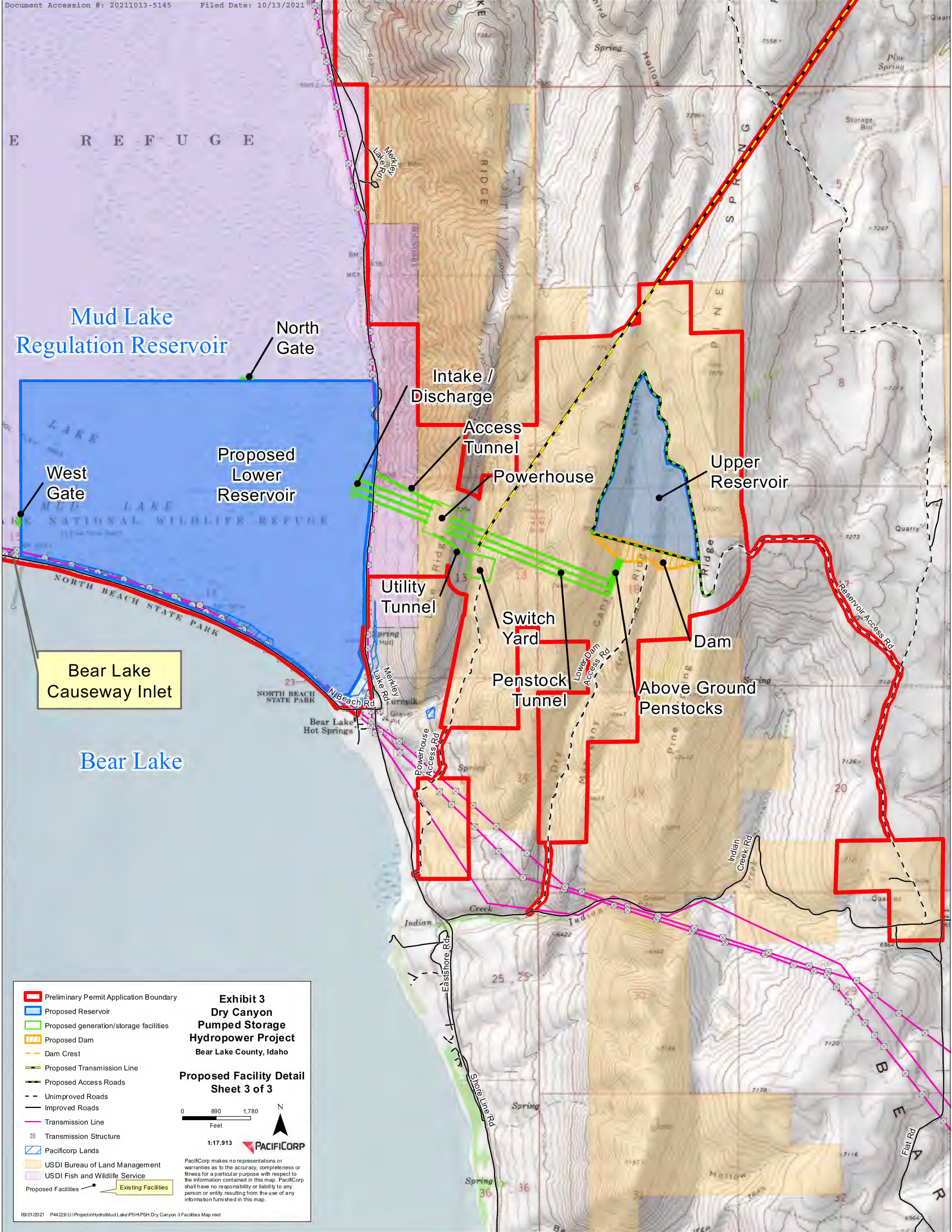
PacifiCorp makes no representations or warranties as to the accuracy, completeness or fitness for a particular purpose with respect to the information contained in this map. PacifiCorp shall have no responsibility or liability to any person or entity resulting from the use of any information furnished in this map.

- Preliminary Permit Application Boundary
  - Proposed Reservoir
  - Proposed generation/storage facilities
  - Proposed Dam
  - Dam Crest
  - Proposed Transmission Line
  - Access Road (gdb)
  - Unimproved Road
  - Improved Road
  - Transmission Lines
  - PacifiCorp Lands
  - Bear Lake National Wildlife Refuge boundary
  - USDI Bureau of Land Management
  - USDI Fish and Wildlife Service
  - USDA Forest Service
  - State of Idaho
- Proposed Facilities Existing Facilities

09/01/2021 P44226 U:\Projects\Hydro\Mud Lake\PSH\PSH Dry Canyon 2 PPA Map.mxd







Preliminary Permit Application Boundary

Proposed Reservoir

Proposed generation/storage facilities

Proposed Dam

Dam Crest

Proposed Transmission Line

Proposed Access Roads

Unimproved Roads

Improved Roads

Transmission Line

Transmission Structure

PacifiCorp Lands

USDI Bureau of Land Management

USDI Fish and Wildlife Service

Proposed Facilities

Existing Facilities

Exhibit 3

Dry Canyon

Pumped Storage

Hydropower Project

Bear Lake County, Idaho

Proposed Facility Detail

Sheet 3 of 3

08901780

Feet

1:17,913

PACIFICORP

PacifiCorp makes no representations or warranties as to the accuracy, completeness or fitness for a particular purpose with respect to the information contained in this map. PacifiCorp shall have no responsibility or liability to any person or entity resulting from the use of any information furnished in this map.

09/01/2021

P44226 U:\Projects\Hydro\Mud Lake\PSH\PSH Dry Canyon 3 Facilities Map.mxd



**APPENDIX A – FERC FORM 587**

**LAND DESCRIPTION****Public Land States  
(Rectangle Survey System Lands)**

1. STATE IDAHO 2. FERC PROJECT NO. N/A  
 3. TOWNSHIP 13S RANGE 44E MERIDIAN BOISE

4. Check one:

       License  
  x   Preliminary Permit

Check one:

  x   Pending  
       Issued:                     

If preliminary permit is issued, give expiration date: N/A

**5. EXHIBIT SHEET NUMBER OR LETTERS**

<b>Section 6</b>	<b>5</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>
<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>11</b>	<b>12</b>
<b>18</b>	<b>17</b>	<b>16</b>	<b>15</b>	<b>14</b>	<b>13</b>
<b>19</b>	<b>20</b>	<b>21</b>	<b>22</b>	<b>23</b>	<b>24</b>
<b>30</b>	<b>29</b>	<b>28</b>	<b>27</b>	<b>26</b>	<b>25</b>
			PacifiCorp, Exhibit 3, Sheet 2		
<b>31</b>	<b>32</b>	<b>33</b>	<b>34</b>	<b>35</b>	<b>36</b>
			PacifiCorp, Exhibit 3, Sheet 2	PacifiCorp, Exhibit 3, Sheet 2	

6. Contact's name Mark Stenberg

Telephone No. 208 339-9552

Date submitted October 13, 2021

**LAND DESCRIPTION****Public Land States  
(Rectangle Survey System Lands)**1. STATE IDAHO 2. FERC PROJECT NO. N/A3. TOWNSHIP 14S RANGE 44E MERIDIAN BOISE

4. Check one:

       License  
  x   Preliminary Permit

Check one:

  x   Pending  
       Issued:                     If preliminary permit is issued, give expiration date: N/A**5. EXHIBIT SHEET NUMBER OR LETTERS**

<b>Section 6</b>	<b>5</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>
			PacifiCorp, Exhibit 3, Sheet 2		
<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>11</b>	<b>12</b>
			PacifiCorp, Exhibit 3, Sheet 2		PacifiCorp, Exhibit 3, Sheet 2
<b>18</b>	<b>17</b>	<b>16</b>	<b>15</b>	<b>14</b>	<b>13</b>
USFWS/Private, Exhibit 3, Sheet 2	USFWS, Exhibit 3, Sheet 2	USFWS/State of Idaho, Exhibit 3, Sheet 2	USFWS/PacifiCorp, Exhibit 3, Sheet 2	PacifiCorp, Exhibit 3, Sheet 2	PacifiCorp, Exhibit 3, Sheet 2
<b>19</b>	<b>20</b>	<b>21</b>	<b>22</b>	<b>23</b>	<b>24</b>
	USFWS, Exhibit 3, Sheet 2		USFWS, Exhibit 3, Sheet 2		
<b>30</b>	<b>29</b>	<b>28</b>	<b>27</b>	<b>26</b>	<b>25</b>
	USFWS, Exhibit 3, Sheet 2	USFWS, Exhibit 3, Sheet 2	USFWS, Exhibit 3, Sheet 2	USFWS, Exhibit 3, Sheet 2	
<b>31</b>	<b>32</b>	<b>33</b>	<b>34</b>	<b>35</b>	<b>36</b>
	USFWS, Exhibit 3, Sheet 2	USFWS, Exhibit 3, Sheet 2	USFWS, Exhibit 3, Sheet 2	USFWS/Private, Exhibit 3, Sheet 2	

6. Contact's name Mark StenbergTelephone No. 208 339-9552Date submitted October 13, 2021

**LAND DESCRIPTION****Public Land States  
(Rectangle Survey System Lands)**

1. STATE IDAHO 2. FERC PROJECT NO. N/A

3. TOWNSHIP 14S RANGE 45E MERIDIAN BOISE

4. Check one:

       License

  x   Preliminary Permit

Check one:

  x   Pending

       Issued:                     

If preliminary permit is issued, give expiration date: N/A

**5. EXHIBIT SHEET NUMBER OR LETTERS**

<b>Section 6</b>	<b>5</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>
<b>7</b> PacifiCorp, Exhibit 3, Sheet 2	<b>8</b> PacifiCorp, Exhibit 3, Sheet 2	<b>9</b>	<b>10</b>	<b>11</b> Private, Exhibit 3, Sheet 2	<b>12</b>
<b>18</b> PacifiCorp, Exhibit 3, Sheet 2	<b>17</b> PacifiCorp, Exhibit 3, Sheet 2	<b>16</b>	<b>15</b> Private, Exhibit 3, Sheet 2	<b>14</b> BLM/Private, Exhibit 3, Sheet 2	<b>13</b>
<b>19</b>	<b>20</b>	<b>21</b> Private, Exhibit 3, Sheet 2	<b>22</b> BLM/Private, Exhibit 3, Sheet 2	<b>23</b>	<b>24</b>
<b>30</b>	<b>29</b> Private, Exhibit 3, Sheet 2	<b>28</b> BLM/Private, Exhibit 3, Sheet 2	<b>27</b>	<b>26</b>	<b>25</b>
<b>31</b>	<b>32</b> BLM/Private, Exhibit 3, Sheet 2	<b>33</b> BLM/Private, Exhibit 3, Sheet 2	<b>34</b>	<b>35</b>	<b>36</b>

6. Contact's name Mark Stenberg

Telephone No. 208 339-9552

Date submitted October 13, 2021

**LAND DESCRIPTION****Public Land States  
(Rectangle Survey System Lands)**

1. STATE IDAHO 2. FERC PROJECT NO. N/A  
 3. TOWNSHIP 15S RANGE 44E MERIDIAN BOISE

4. Check one:

       License  
  x   Preliminary Permit

Check one:

  x   Pending  
       Issued:                     

If preliminary permit is issued, give expiration date: N/A

**5. EXHIBIT SHEET NUMBER OR LETTERS**

<b>Section 6</b>	<b>5</b> USFWS, Exhibit 3, Sheet 2	<b>4</b> USFWS, Exhibit 3, Sheet 2	<b>3</b> USFWS, Exhibit 3, Sheet 2	<b>2</b> USFWS, Exhibit 3, Sheet 2	<b>1</b> USFWS, Exhibit 3, Sheet 2
<b>7</b>	<b>8</b>	<b>9</b> USFWS, Exhibit 3, Sheet 2	<b>10</b> USFWS, Exhibit 3, Sheet 2	<b>11</b> USFWS, Exhibit 3, Sheet 2	<b>12</b> USFWS/BLM, Exhibit 3, Sheet 2
<b>18</b> PacifiCorp, Exhibit 3, Sheet 2	<b>17</b> PacifiCorp, Exhibit 3, Sheet 2	<b>16</b> USFWS/PacifiCorp, Exhibit 3, Sheet 2	<b>15</b> USFWS/PacifiCorp, Exhibit 3, Sheet 2	<b>14</b> USFWS/PacifiCorp, Exhibit 3, Sheet 2	<b>13</b> USFWS/BLM/Private, Exhibit 3, Sheet 2
<b>19</b>	<b>20</b>	<b>21</b>	<b>22</b>	<b>23</b> USFWS/State of Idaho, Exhibit 3, Sheet 2	<b>24</b> USFWS/BLM/ PacifiCorp/Private, Exhibit 3, Sheet 2
<b>30</b>	<b>29</b>	<b>28</b>	<b>27</b>	<b>26</b>	<b>25</b> Private, Exhibit 3, Sheet 2
<b>31</b>	<b>32</b>	<b>33</b>	<b>34</b>	<b>35</b>	<b>36</b>

6. Contact's name Mark Stenberg

Telephone No. 208 339-9552

Date submitted October 13, 2021

**LAND DESCRIPTION****Public Land States  
(Rectangle Survey System Lands)**1. STATE IDAHO 2. FERC PROJECT NO. N/A3. TOWNSHIP 15S RANGE 45E MERIDIAN BOISE

4. Check one:

       License  
  x   Preliminary Permit

Check one:

  x   Pending  
       Issued:                     If preliminary permit is issued, give expiration date: N/A**5. EXHIBIT SHEET NUMBER OR LETTERS**

<b>Section 6</b>	<b>5</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>
Private, Exhibit 3, Sheet 2	Private, Exhibit 3, Sheet 2				
<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>11</b>	<b>12</b>
BLM/Private, Exhibit 3, Sheet 2					
<b>18</b>	<b>17</b>	<b>16</b>	<b>15</b>	<b>14</b>	<b>13</b>
BLM/Private, Exhibit 3, Sheet 2	Private, Exhibit 3, Sheet 2				
<b>19</b>	<b>20</b>	<b>21</b>	<b>22</b>	<b>23</b>	<b>24</b>
BLM/Private, Exhibit 3, Sheet 2	BLM/Private, Exhibit 3, Sheet 2				
<b>30</b>	<b>29</b>	<b>28</b>	<b>27</b>	<b>26</b>	<b>25</b>
Private, Exhibit 3, Sheet 2	BLM, Exhibit 3, Sheet 2				
<b>31</b>	<b>32</b>	<b>33</b>	<b>34</b>	<b>35</b>	<b>36</b>

6. Contact's name Mark StenbergTelephone No. 208 339-9552Date submitted October 13, 2021

**APPENDIX B – LISTING OF LANDS OF THE UNITED STATES**



TOWNSHIP	RANGE	SEC	QQ	GOVTLOTN	GIS_ACRES	Agency
14S	44E		15 SWSE	0	17.87	USFWS
14S	44E		16 SWNW	0	9.20	USFWS
14S	44E		17 NENW	0	3.54	USFWS
14S	44E		17 NENW	5	10.29	USFWS
14S	44E		17 NESW	0	40.48	USFWS
14S	44E		17 NWNE	0	3.70	USFWS
14S	44E		17 NWNW	0	3.35	USFWS
14S	44E		17 NWNW	6	32.90	USFWS
14S	44E		17 SENE	0	40.08	USFWS
14S	44E		17 SENW	0	40.43	USFWS
14S	44E		17 SESW	0	40.54	USFWS
14S	44E		17 SWNE	0	40.45	USFWS
14S	44E		17 SWNW	0	40.33	USFWS
14S	44E		17 SWSE	0	40.56	USFWS
14S	44E		18 SENE	0	38.21	USFWS
14S	44E		18 SWNE	0	14.11	USFWS
14S	44E		20 NESE	0	40.07	USFWS
14S	44E		20 NWNE	0	40.07	USFWS
14S	44E		20 NWSE	0	40.07	USFWS
14S	44E		20 SENE	0	40.07	USFWS
14S	44E		20 SESE	0	40.07	USFWS
14S	44E		20 SWNE	0	40.07	USFWS
14S	44E		20 SWSE	0	40.07	USFWS
14S	44E		22 NENW	0	40.41	USFWS
14S	44E		22 NWNE	0	40.38	USFWS
14S	44E		22 NWSE	0	40.17	USFWS
14S	44E		22 SENW	0	40.31	USFWS
14S	44E		22 SESW	0	40.04	USFWS
14S	44E		22 SWNE	0	40.31	USFWS
14S	44E		22 SWSE	0	40.04	USFWS
14S	44E		26 NENW	0	0.03	USFWS
14S	44E		26 NESW	0	9.05	USFWS
14S	44E		26 NWNW	0	38.31	USFWS
14S	44E		26 NWSW	0	40.51	USFWS
14S	44E		26 SENW	0	2.65	USFWS
14S	44E		26 SESW	0	32.71	USFWS
14S	44E		26 SWNW	0	40.69	USFWS
14S	44E		26 SWSE	0	0.37	USFWS
14S	44E		26 SWSW	0	40.46	USFWS
14S	44E		27 NENE	0	40.10	USFWS
14S	44E		27 NENW	0	40.07	USFWS
14S	44E		27 NESE	0	40.12	USFWS
14S	44E		27 NESW	0	40.08	USFWS
14S	44E		27 NWNE	0	40.09	USFWS
14S	44E		27 NWSE	0	40.10	USFWS
14S	44E		27 NWSW	0	40.06	USFWS
14S	44E		27 SENE	0	40.11	USFWS

14S	44E	27 SENW	0	40.07	USFWS
14S	44E	27 SESE	0	40.13	USFWS
14S	44E	27 SESW	0	40.09	USFWS
14S	44E	27 SWNE	0	40.09	USFWS
14S	44E	27 SWNW	0	40.06	USFWS
14S	44E	27 SWSE	0	40.11	USFWS
14S	44E	27 SWSW	0	40.07	USFWS
14S	44E	28 NESE	0	40.05	USFWS
14S	44E	28 NWSE	0	40.05	USFWS
14S	44E	28 NWSW	0	40.04	USFWS
14S	44E	28 SESE	0	40.05	USFWS
14S	44E	28 SESW	0	40.04	USFWS
14S	44E	28 SWNW	0	40.04	USFWS
14S	44E	28 SWSE	0	40.05	USFWS
14S	44E	28 SWSW	0	40.04	USFWS
14S	44E	29 NENE	0	40.02	USFWS
14S	44E	29 NESE	0	40.02	USFWS
14S	44E	29 SENE	0	40.02	USFWS
14S	44E	29 SESE	0	40.03	USFWS
14S	44E	32 NENE	0	39.98	USFWS
14S	44E	32 NESE	0	39.97	USFWS
14S	44E	32 NESW	0	40.00	USFWS
14S	44E	32 NWSE	0	40.00	USFWS
14S	44E	32 SENE	0	39.98	USFWS
14S	44E	32 SENW	0	40.00	USFWS
14S	44E	32 SESE	0	39.94	USFWS
14S	44E	32 SWNE	0	40.00	USFWS
14S	44E	32 SWSE	0	39.95	USFWS
14S	44E	33 NENE	0	40.00	USFWS
14S	44E	33 NENW	0	40.00	USFWS
14S	44E	33 NESE	0	40.00	USFWS
14S	44E	33 NESW	0	40.00	USFWS
14S	44E	33 NWNE	0	40.00	USFWS
14S	44E	33 NWNW	0	40.00	USFWS
14S	44E	33 NWSE	0	40.00	USFWS
14S	44E	33 NWSW	0	40.00	USFWS
14S	44E	33 SENE	0	40.00	USFWS
14S	44E	33 SENW	0	40.00	USFWS
14S	44E	33 SESE	0	40.00	USFWS
14S	44E	33 SESW	0	40.00	USFWS
14S	44E	33 SWNE	0	40.00	USFWS
14S	44E	33 SWNW	0	40.00	USFWS
14S	44E	33 SWSE	0	40.00	USFWS
14S	44E	33 SWSW	0	40.00	USFWS
14S	44E	34 NENE	0	39.95	USFWS
14S	44E	34 NENW	0	39.99	USFWS
14S	44E	34 NESE	0	39.94	USFWS
14S	44E	34 NESW	0	39.98	USFWS

14S	44E	34 NWNW	0	39.97 USFWS
14S	44E	34 NWNW	0	40.01 USFWS
14S	44E	34 NWSE	0	39.96 USFWS
14S	44E	34 NWSW	0	39.99 USFWS
14S	44E	34 SENE	0	39.95 USFWS
14S	44E	34 SENW	0	39.98 USFWS
14S	44E	34 SESE	0	39.93 USFWS
14S	44E	34 SESW	0	39.97 USFWS
14S	44E	34 SWNE	0	39.96 USFWS
14S	44E	34 SWNW	0	40.00 USFWS
14S	44E	34 SWSE	0	39.95 USFWS
14S	44E	34 SWSW	0	39.99 USFWS
14S	44E	35 NENE	0	1.75 USFWS
14S	44E	35 NENW	0	40.11 USFWS
14S	44E	35 NESE	0	15.56 USFWS
14S	44E	35 NESE	3	25.46 USFWS
14S	44E	35 NESW	0	40.53 USFWS
14S	44E	35 NWNW	0	27.40 USFWS
14S	44E	35 NWNW	0	40.21 USFWS
14S	44E	35 NWSE	0	40.59 USFWS
14S	44E	35 NWSW	0	40.48 USFWS
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14S	44E	35 SESE	0	29.86 USFWS
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14S	44E	35 SWNW	0	40.38 USFWS
14S	44E	35 SWSE	0	40.73 USFWS
14S	44E	35 SWSW	0	40.58 USFWS
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14S	45E	28 NESW	0	39.86 BLM
14S	45E	28 SWNE	0	39.90 BLM
14S	45E	32 SENE	0	39.26 BLM
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15S	44E	1 NWSW	0	22.35 USFWS
15S	44E	1 NWSW	9	19.23 USFWS
15S	44E	1 SWNW	0	2.74 USFWS
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15S	44E	14 NWNE	0	39.77 USFWS
15S	44E	14 NWNW	0	39.76 USFWS
15S	44E	14 NWSE	0	36.26 USFWS
15S	44E	14 NWSW	0	23.58 USFWS
15S	44E	14 SENE	0	39.90 USFWS
15S	44E	14 SENW	0	39.12 USFWS
15S	44E	14 SESE	0	34.12 USFWS
15S	44E	14 SWNE	0	39.90 USFWS
15S	44E	14 SWNW	0	39.78 USFWS
15S	44E	14 SWSE	0	18.84 USFWS
15S	44E	15 NENE	0	39.74 USFWS
15S	44E	15 NENW	0	40.00 USFWS
15S	44E	15 NWNE	0	39.74 USFWS
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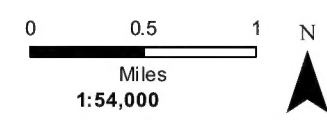
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15S	45E	20 SESE	5	42.19 BLM
15S	45E	20 SWSE	4	42.64 BLM
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**Exhibit 3**  
**Dry Canyon**  
**Pumped Storage**  
**Hydropower Project**  
Bear Lake County, Idaho

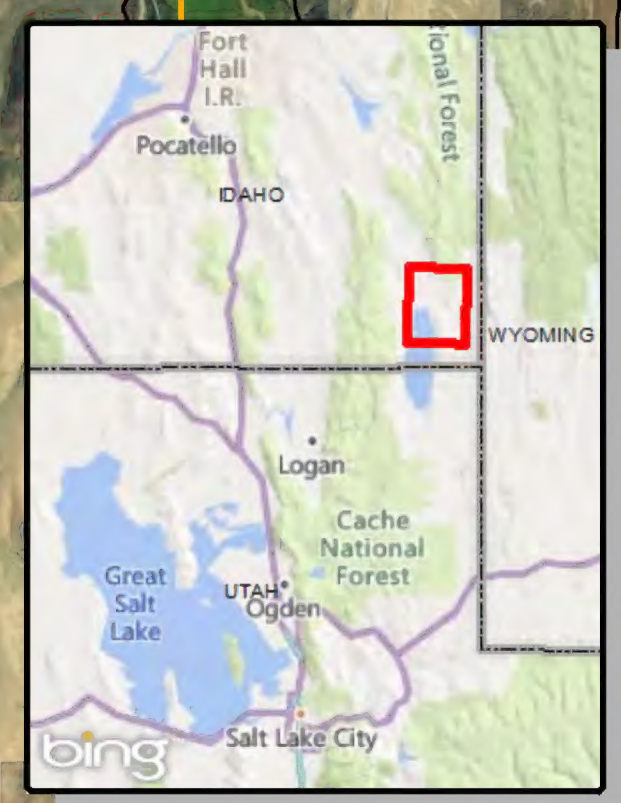
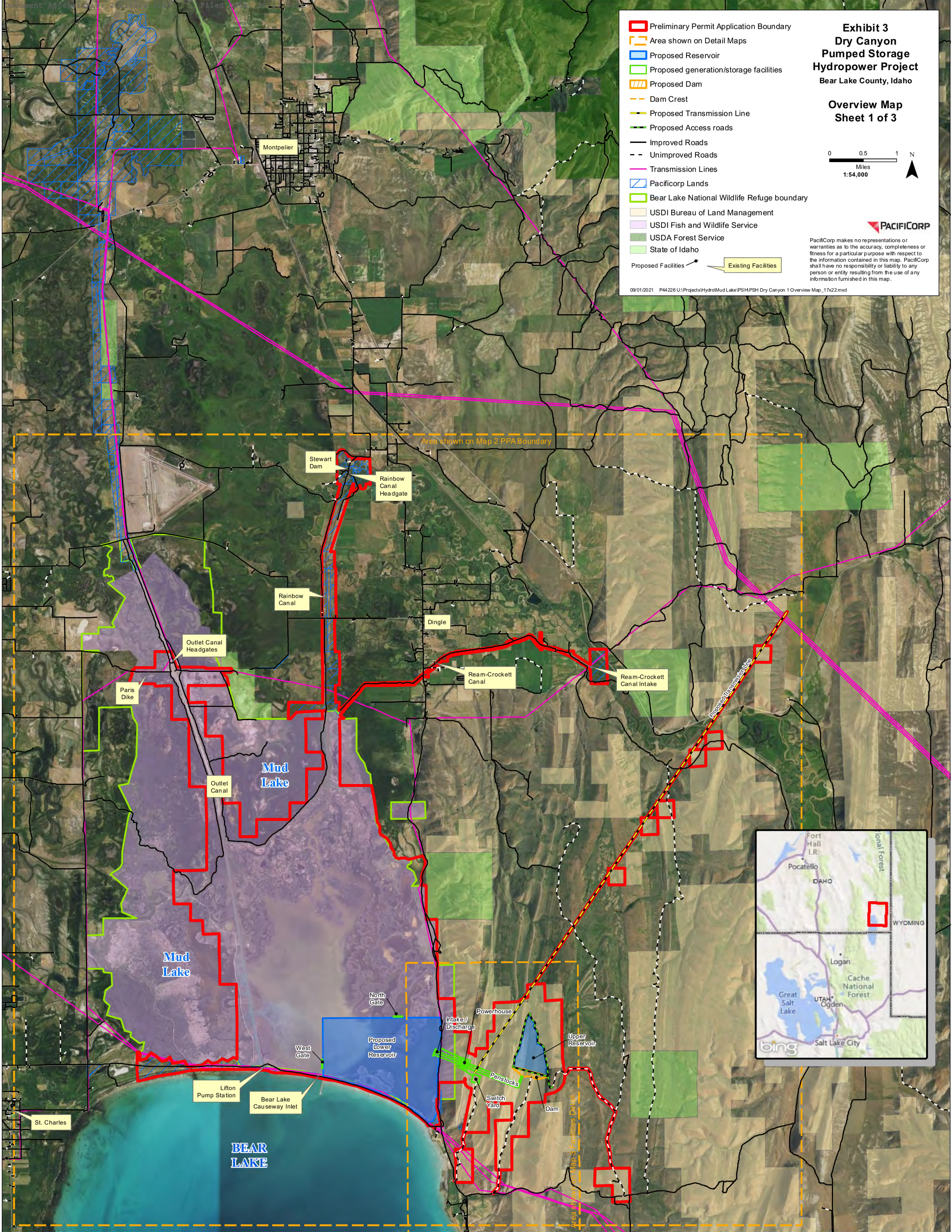
**Overview Map**  
**Sheet 1 of 3**

- Preliminary Permit Application Boundary
- Area shown on Detail Maps
- Proposed Reservoir
- Proposed generation/storage facilities
- Proposed Dam
- Dam Crest
- Proposed Transmission Line
- Proposed Access roads
- Improved Roads
- Unimproved Roads
- Transmission Lines
- PacifiCorp Lands
- Bear Lake National Wildlife Refuge boundary
- USDI Bureau of Land Management
- USDI Fish and Wildlife Service
- USDA Forest Service
- State of Idaho
- Proposed Facilities
- Existing Facilities



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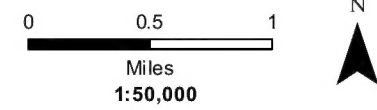
09/01/2021 P44226 U:\Projects\Hydro\Mud Lake\PSH\PSH Dry Canyon 1 Overview Map\_17x22.mxd





**Exhibit 3**  
**Dry Canyon**  
**Pumped Storage**  
**Hydropower Project**  
Bear Lake County, Idaho

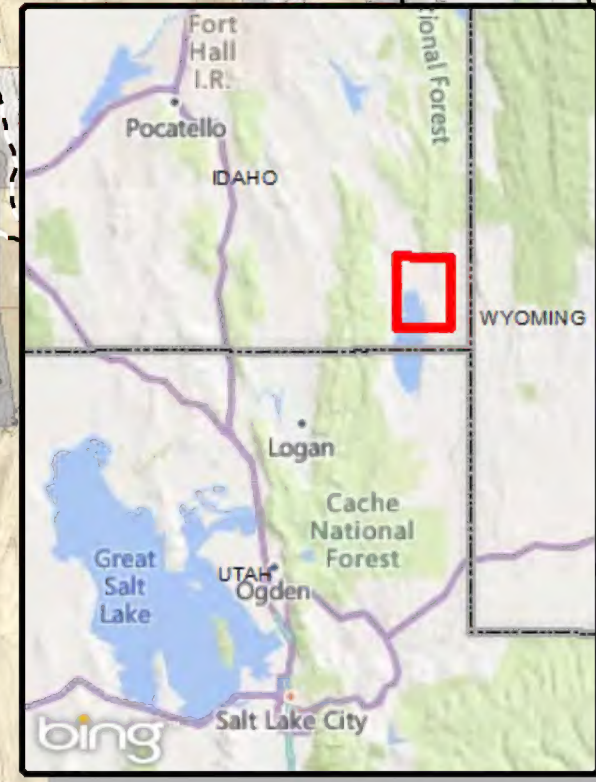
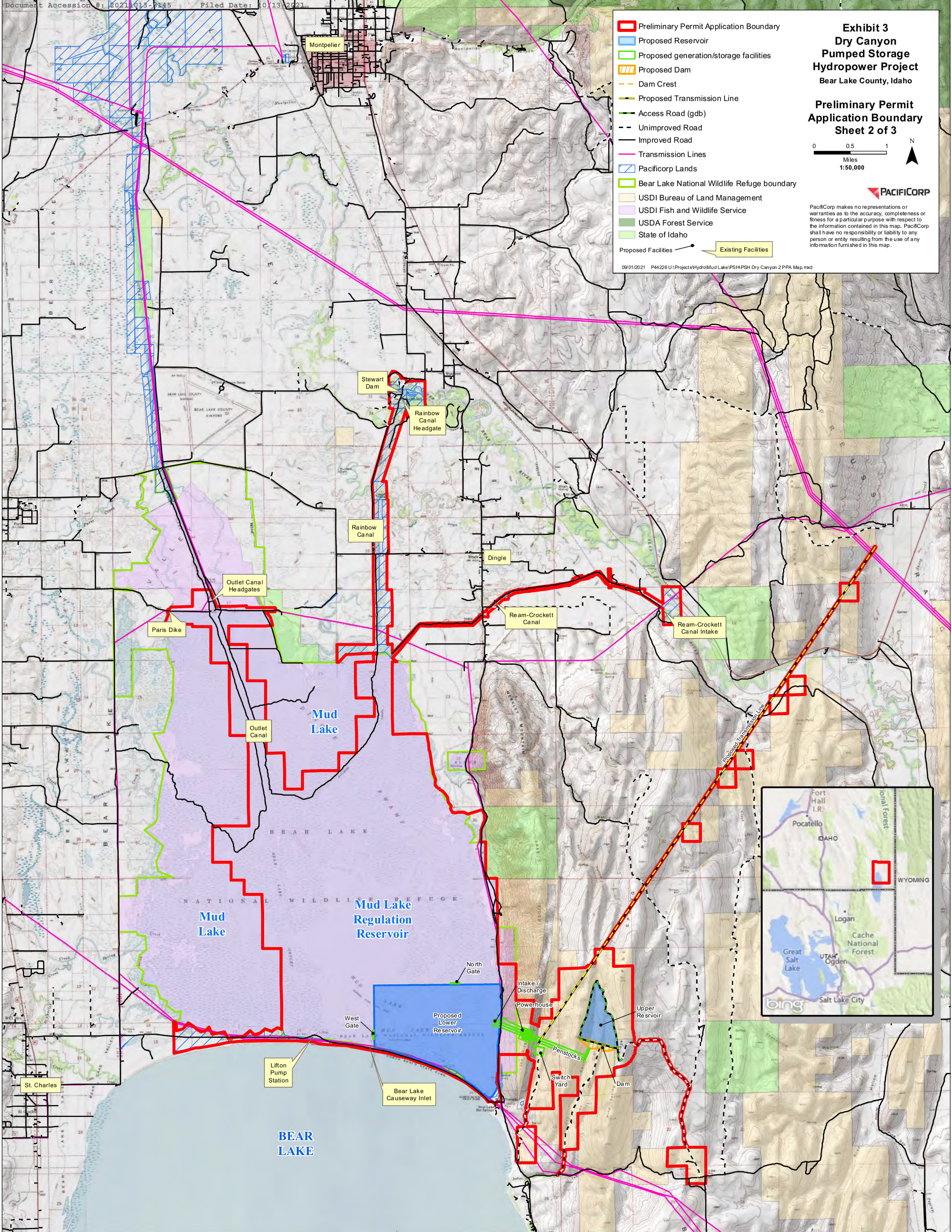
**Preliminary Permit**  
**Application Boundary**  
**Sheet 2 of 3**



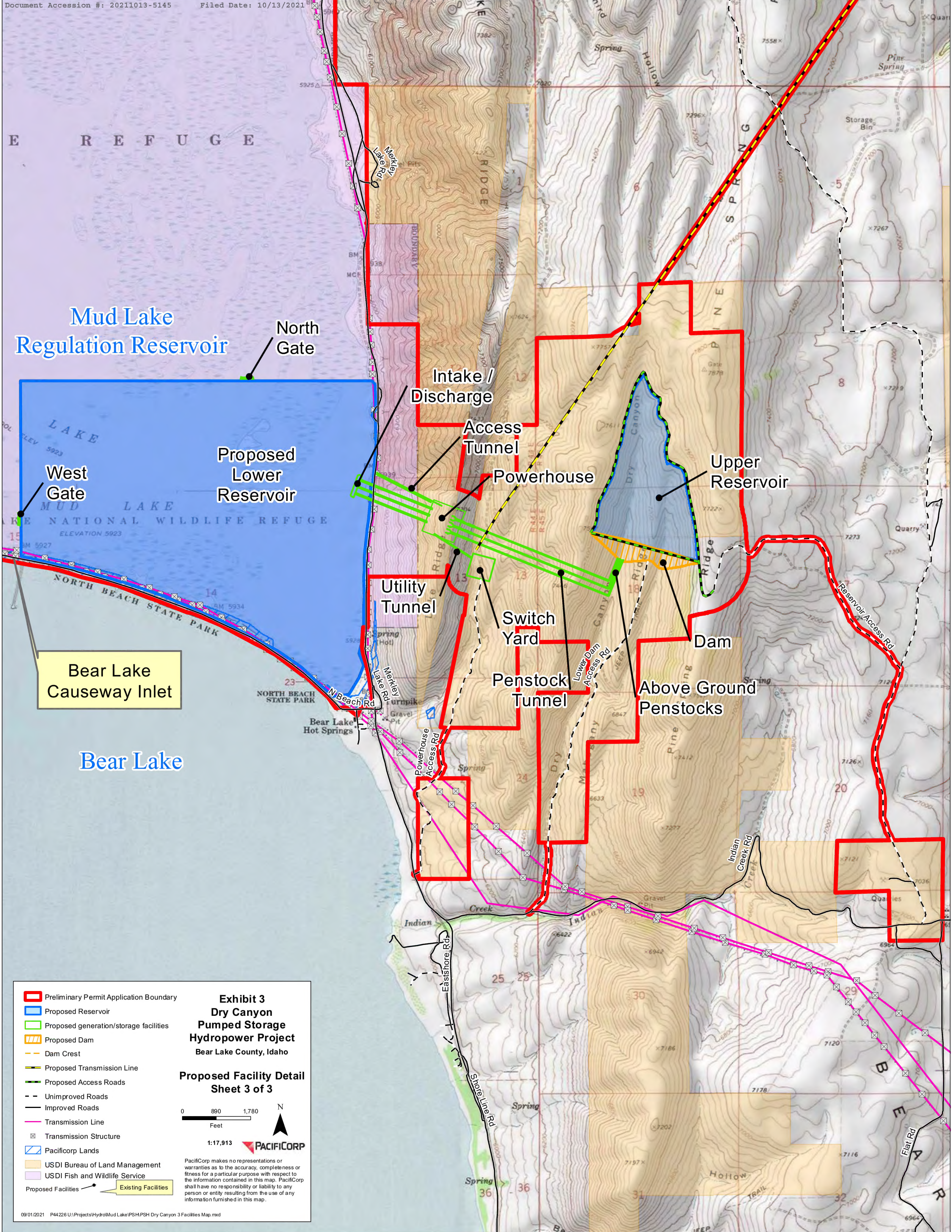
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- Preliminary Permit Application Boundary
  - Proposed Reservoir
  - Proposed generation/storage facilities
  - Proposed Dam
  - Dam Crest
  - Proposed Transmission Line
  - Access Road (gdb)
  - Unimproved Road
  - Improved Road
  - Transmission Lines
  - PacifiCorp Lands
  - Bear Lake National Wildlife Refuge boundary
  - USDI Bureau of Land Management
  - USDI Fish and Wildlife Service
  - USDA Forest Service
  - State of Idaho
- Proposed Facilities      Existing Facilities

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Mud Lake  
Regulation Reservoir

North  
Gate

Intake /  
Discharge

Access  
Tunnel

Powerhouse

Upper  
Reservoir

Proposed  
Lower  
Reservoir

West  
Gate

Utility  
Tunnel

Switch  
Yard

Penstock  
Tunnel

Dam

Above Ground  
Penstocks

Bear Lake  
Causeway Inlet

Bear Lake

Preliminary Permit Application Boundary

Proposed Reservoir

Proposed generation/storage facilities

Proposed Dam

Dam Crest

Proposed Transmission Line

Proposed Access Roads

Unimproved Roads

Improved Roads

Transmission Line

Transmission Structure

Pacificorp Lands

USDI Bureau of Land Management

USDI Fish and Wildlife Service

Proposed Facilities

Existing Facilities

Exhibit 3

Dry Canyon

Pumped Storage

Hydropower Project

Bear Lake County, Idaho

Proposed Facility Detail

Sheet 3 of 3

0

890

1,780

Feet

1:17,913

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09/01/2021

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